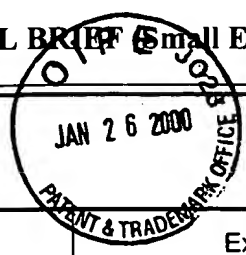


AF / GP 3634

TRANSMITTAL OF APPEAL BRIEF (Small Entity)			Docket No. MCES-0002-US
In Re Application Of: Jason T. Epps, et al.			
Serial No. 09/004,803	Filing Date 1/9/98	Examiner G. Strimbu	Group Art Unit 3634



Invention: **MOTOR OPERATED FAST-FOOD SERVICE WINDOW WITH UPWARDLY FOCUSED PROXIMITY DETECTORS**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on: **November 30, 1999**

Applicant is a small entity under 37 CFR 1.9 and 1.27.

A verified statement of small entity status under 37 CFR 1.27:

- ☐ is enclosed.
- ☒ has already been filed in this application.

The fee for filing this Appeal Brief is: **\$150.00**

- ☒ A check in the amount of the fee is enclosed.
- ☐ The Commissioner has already been authorized to charge fees in this application to a Deposit Account. A duplicate copy of this sheet is enclosed.
- ☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **20-1504**
- A duplicate copy of this sheet is enclosed.

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Dated: 1-26-2000

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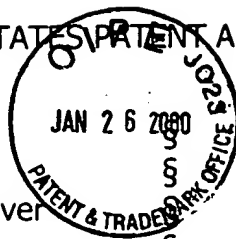
I certify that this document and fee is being deposited on Jan 26, 2000 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.


Signature of Person Mailing Correspondence

JOHN R. MERKLING
Typed or Printed Name of Person Mailing Correspondence

CC:

Applicants: Jason T. Epps
Dan L. Terry
Jackson G. Weaver



Group Art Unit: 3634

Serial No.: 09/004,803

Examiner: Strimbu, G.

Filed: Jan 9, 1998

For: Motor Operated Fast-Food
Service Window with Upwardly
Focused Proximity Detectors

Attorney Docket No.:
MCES-0002 US

Patricia Lewis
#17/4
Applicants
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Assistant Commissioner for Patents
Board of Patent Appeals and Interferences
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Attn: Board of Patent Appeals and Interferences

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APPLICANTS' BRIEF ON APPEAL

Sir:

Applicants respectfully appeal from the final rejection mailed September 2, 1999.

I. Real Party in Interest

The real party in interest is M.C.E. Systems Corporation, a Texas corporation, small business entity and assignee of the entire interest in the invention.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of the Claims

Claims 1-5, 7, 9 and 10 are pending in this case. Claims 6 and 8 are cancelled. This appeal is taken from the final rejection of the pending claims 1-5,

OK

7, 9 and 10 under 35 U.S.C. § 103 over admitted prior art (figure 5 of the specification) in view of U.S. Patent 5,142,152 to Boiucaner.

IV. Status of Amendments

Applicants' Response after Final dated September 10, 1999 was entered upon filing of this appeal. (Advisory Action dated September 24, 1999.) The Response offers corrections to certain drawing figures and an additional affidavit, but makes no amendments to the claims.

V. Summary of the Invention

The invention relates to a motor operated fast-food service window with upwardly focused proximity detectors.

This invention pertains to access windows and similar equipment, more particularly to access windows for drive-through and walk-up fast-food service installations. These access windows are typically provided in a building, such as a fast-food service establishment, a convenience drive-up food store, a service station attendant's booth, a free-standing kiosk, or the like. (Specification p. 2, l. 3-7.) In a typical commercial environment a drive-up access window must easily permit the clerk to transact business with a customer and yet provide the necessary isolation between the outside environment and the inside environment to satisfy health and safety requirements. (Specification p. 2, l. 13-16.)

In one embodiment of the present invention, a plurality of upwardly focused infrared emitter/receivers mounted on the internal side of a fast-food service window in a manner emitting an upwardly focused infrared beam. (Specification p. 4, l. 1-4, FIG. 1.) The upwardly oriented sensors are coupled to an electric motor which opens the window as an employee prepares to deliver merchandise or other items to a customer. (Specification p. 4, l. 13-15.) An object is sensed if the amount of light at a near receiver or detector is greater than the amount of light at a far receiver or detector. (FIG. 6.) In one embodiment, the proximity sensors are mounted to reliably detect a clerk

wishing to service a customer as the clerk reaches across the horizontal service plane proximate to the access window (just prior to servicing a customer). The proximity sensors substantially reject any false signals from passing employees who do not intend to service a customer, thereby virtually eliminating the inadvertent opening of the access window. (Specification p. 8, l. 6-19.) Upwardly focused sensing elements provide a significant reduction in unintentional opening actions because only product or goods being passed above or over the sensors activate the window. (Affidavit of Steven Halliburton, ¶ 10.)

VI. Issues

May claims be rejected under 35 U.S.C. §103 where the cited references, either alone or in combination, do not disclose a claimed limitation?

May claims be rejected under 35 U.S.C. §103 based on an allegedly obvious modification of the cited references if a properly requested affidavit under 37 C.F.R. §1.104 has not been provided?

Even if a *prima facie* case under 35 U.S.C. §103 had been made, does proof of actual existence of a combination for a long time and despite a recognized need for improvement establish that an invention is not obvious, where the combination also lacks the claim limitation which was lacking in the cited references?

VI. Grouping of Claims

All of the claims are rejected under 35 U.S.C. §103 over admitted prior art (figure 5 of the specification) in view of Boiucaner. Each of the independent claims (claims 1, 2 and 3) contain a limitation similar to the language of claim 1, which recites “. . . an upwardly focused proximity sensor”. It is believed that claim 1 may represent the group of independent claims for purposes of this appeal. The dependent claims are considered to be allowable with their respective independent claims.

VII. Argument

This application relates to access windows for drive-through and walk-up fast-food service establishments. Typically an attendant may deal with a customer through an automatically opening and closing window. If the window does not open or if it opens or closes at the wrong time, it will interfere with delivering product to the customer or receiving payment from the customer. Such a window may be opened and closed in excess of 900 times a day at a single establishment. It is well known that there are large numbers of fast-food service establishments. Given the number of fast-food service establishments and the extent of use of automatic windows, it is clear that improvements in delivery of service are important. Automatic windows closing on food packages or on the hands or arms of attendants or customers is not desirable.

The prior art has provided automatic windows triggered by manual or body-contact switches or by proximity or light-beam sensors directed in a generally horizontal plane at about waist height. (Specification, p. 2, l. 17-20 and p. 3, l. 6-11.) Although generally effective, horizontally directed proximity sensors generate false openings and closings by being too sensitive (opening when an attendant is near, but not using the window (affidavit of Steven Halliburton, ¶ 8)); not sensitive enough (closing when the attendant's torso, but not arms and food, shifts slightly out of range (Specification p. 10, l. 15-20)); or inconsistent (responding differently to light and dark clothing (affidavit of Steven Halliburton, ¶9)). Automatic door opening systems, although not specifically opening service windows, have used proximity sensors directed either downwardly or horizontally to detect a person approaching a door. (E.g., Boiucaner '152, Jönsson '391, Utke '747, or Gionet et al. '437.)

Applicants have discovered that if the proximity sensors on an automatic fast-food service window are oriented generally vertically, thereby sensing primarily the presence of products or the arms and hands of an attendant, the number of false openings and closings are reduced. Each of the independent claims recites "an upwardly focused proximity sensor" (claim 1) or "a plurality of

upwardly focused proximity sensors" (claim 2) or "an upwardly focused infrared proximity sensor" (claim 3).

The claims are rejected under 35 U.S.C. § 103 as obvious over admitted prior art (Fig. 5 of the specification) in view of U.S. Patent 5,142,152 to Boiucaner. Neither the admitted prior art nor Boiucaner show an upwardly focused proximity sensor. It is well established law that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." M.P.E.P. 2143.01 quoting *In re Mills*, 916 F.2d 680,16 U.S.P.Q.2d (BNA) 1430 (Fed. Cir. 1990). Absent such a teaching or suggestion, Boiucaner (alone or in combination with the admitted prior art) fails to establish a *prima facie* case of obviousness.

The Examiner has further cited U.S. Patents 2,341,546 to Hagenbook, 5,276,391 to Jönsson, 5,589,747 to Utke and 4,577,437 to Gionet et al. as supplemental references to support his 35 U.S.C. § 103 rejection. None of these references show or suggest an upwardly focused proximity sensor. Thus, these references (alone or in combination with one another or Boiucaner and the Applicant's admitted prior art) fail to establish a *prima facie* case of obviousness.

In compliance with long established Patent Office rules, Applicants requested that the Examiner provide an affidavit under 37 C.F.R. §1.104, if the Examiner was implicitly intending to go beyond the references. The Examiner has declined to do so.

Although the Examiner has failed to make a *prima facie* case for rejection under 35 U.S.C. §103, Applicants have also provided affidavit evidence in support of the non-obviousness of the claimed invention. Applicants respectfully submit that the Examiner has erred in failing to properly consider this evidence.

WHERE NONE OF THE PRIOR ART REFERENCES DISCLOSE A RECITED FEATURE OF THE CLAIMS, REJECTION UNDER 35 U.S.C. § 103 IS IMPROPER AND THE CLAIMS SHOULD BE ALLOWED.

Each of the independent claims in this case recite “an upwardly directed proximity sensor”, or a similar limitation. None of the references show this feature. Boiucaner discloses a sliding door sensor employing two arrays of infrared emitters to detect the presence and motion of a person approaching a door. Both arrays are directed downwardly. Jönsson also shows a door with light emitting diode sensors. The sensors are directed primarily horizontally. They are angled upward from the horizontal plane at about 30°, so that the principle area of sensing is perpendicular to the door, that is to say, horizontally (see, e.g., Fig. 4). Utke discloses a light and motion sensor for a garage door. The sensor is directed downwardly or horizontally (see, e.g., Fig. 3). Gionet et al. is another door opener using dual sensors directed downwardly (Fig. 3, element 32) or horizontally (Fig. 3, elements 34 and 36). Hagenbook does not employ a proximity sensor. In Hagenbook, a light beam and receiver are mounted a predetermined horizontal distance in front of a revolving door. A person approaching the door interrupts the beam, which causes the apparatus to turn the doors. A light-beam sensor similar to that of Hagenbook is shown in figure 5 of the specification. None of the secondary references, therefore, show an upwardly directed proximity sensor. This is the feature missing from the admitted prior art (figure 5 of the specification).

As recently pointed out by the Federal Circuit in *All-Site Corp. v. VSI Int'l, Inc.*, 50 U.S.P.Q.2d (BNA) 1161, 1171 (Fed. Cir. 1999), it is improper to attempt to use level of skill in the art to supply a missing teaching:

VSI argues that it would have been obvious to one of ordinary skill in the art to punch a hole in the Seaver security tag and hang it from a cantilevered support... VSI is unable, however, to point to any specific teaching or suggestion for making this combination. VSI instead relies on what it presumes is the level of knowledge of one of ordinary skill in the art at the time of the invention to supply the missing suggestion to combine. In the first place, the level of skill in the art is a prism or lens through which a judge or jury views the prior art and the claimed invention. This reference point prevents these deciders from using their own insight or, worse yet, hindsight, to gauge obviousness. Rarely, however, will the skill in the art component operate to supply missing

knowledge or prior art to reach an obviousness judgment. *See W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. (BNA) 303, 312-313 (Fed. Cir. 1983) ("To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.") Skill in the art does not act as a bridge over gaps in substantive presentation of an obviousness case, but instead supplies the primary guarantee of objectivity in the process. [citations omitted]

The Applicants' invention lies substantially in the recognition of the source of a problem. Once the source of the problem has been properly recognized, the solution may appear, by hindsight, to have been obvious. Application of such hindsight is, of course, impermissible. Applicants have recognized that detection of the presence of product or of the arms, head or shoulders of an attendant near an automatic window have a greater correlation to the desired state of the window than does the torso or center of mass of the attendant. Simply put, prior art devices have been detecting the wrong things.

The prior art triggering mechanisms for automatic windows fall generally into two categories: mechanical switches and sensors. (Specification, p. 2, l. 17-20 and p. 3, l. 6-11.) Mechanical switches, which must free the hands of the attendant to hold product, have generally been operated by contact with the hip or side of the attendant, that is, with the attendant's torso. Sensors directed out, down or across have been configured to detect the presence of the attendant's torso or the main body mass of the attendant. (E.g., specification at p. 10, l. 10-20, affidavit of Steven Halliburton, ¶18, and Reltec Product Brochure, p. 3.) This principle can be seen in each of the references cited by the Examiner. By way of example, the admitted prior art of Fig. 5 has a light beam which intersects the attendant at waist height. With arms raised to carry food products, the attendant will interrupt the beam with his or her torso. The secondary references all describe automatic doors and clearly detect the entire body of a person approaching the door. There is no need for detecting product carried by an

attendant or a selected part of the body and no suggestion that limited detection would be desirable. By recognizing that detection of product or only a part of the body is more effective than detection of the whole body, Applicants have contributed to the automatic window art. Applicant's apparatus with upwardly pointed proximity sensors is entitled to be patented.

The U.S. Supreme Court's decision in *Eibel Process Co. v. Minnesota & Ontario Paper Co.* (261 U.S. 45 (1923)) emphasizes the relevance of the inventor's discovery of the source of the problem. The problem in *Eibel Process* was the limited rate of production in a paper-making machine. The unrecognized source of the problem was unequal speeds of paper pulp and supporting wire at a particular point in the process. Having recognized the source of the problem, the inventor altered the slant of a pre-existing paper-making machine by twelve inches or more and allowed gravity to increase the speed of the paper pulp. The Court upheld the claim to the improved machine. The Court said:

" . . . The invention was not the mere use of a high or substantial pitch to remedy a known source of trouble. It was the discovery of the source of trouble. It was the discovery of the source not before known and the application of the remedy for which Eibel was entitled to be awarded his patent. . . ." *Eibel Process Co. v. Minnesota & Ontario Paper Co.* (261 US 45 (1923))

As will be demonstrated below, it has been known for a long time that automatic windows open or close at inappropriate times. Nevertheless, where sensors have been used, the apparatus have sensed the whole body of the attendant. The art relied on by the Examiner is representative of this situation. It had not been recognized that it is primarily product held by the attendant and a more limited portion of the body that should be sensed. The Examiner's arguments rejecting Applicant's claims fail to recognize this fundamental distinction in principle. For example, on page 4 of paper 13, the Examiner argues that Boiucaner teaches that a door should be operated ". . . when a person is in a desired predetermined position . . ." [Emphasis added.] The Examiner states

that Hagenbook, Jönsson, Utke and Gionet et al. similarly each teach operation of a closure (a door) “. . . when a person is in a predetermined position . . .” [Paper 13, page 7. Emphasis added.] Clearly, the Examiner draws the same conclusion as others in the art, that is, that it is the body or person of the attendant which should be detected. Applicants’ invention, however, detects product or the hands and arms of the attendant, rather than the person. Additional evidence substantiating discovery of the source of the problem (M.P.E.P. 2141.02 and *In Re Wiseman*, 596 F.2d 1019, 201 U.S.P.Q. (BNA) 658 (CCPA, 1979)) has been provided in connection with the affidavit of Steven Halliburton, which is discussed more fully below.

RELIANCE ON GENERAL SKILL IN THE ART TO SUPPLY A MISSING ELEMENT IS IMPROPER IN THE ABSENCE OF A REQUESTED AFFIDAVIT UNDER 37 C.F.R. § 1.104

In the parent case to this CPA application, the Examiner took the position that “common sense” would necessarily produce the claimed invention. See Final Rejection May 4, 1999, page 6. The Examiner stated:

“When one with ordinary skill in the art is presented with problems created by the limited range of the sensor of the admitted prior art in figure 5 and the teachings of Boiucaner, he or she would replace the sensor of the admitted prior art in figure 5 with the sensor of Boiucaner. Although Boiucaner discloses orienting the sensor in the downward position, Boiucaner teaches placing the sensor in a particular position for a particular use, i.e. sensing when a person is close enough to the door to warrant opening the door. One with ordinary skill in the art, armed with the particular orientation for a particular use teaching of Boiucaner and his or her common sense, would orient the sensor in a way which would yield the best results for fast-food window use. It is the examiner’s position that the best results for the fast-food window application would be an upward orientation since the feet of the workers might be undesirably sensed by the sensor. Thus, by orienting the sensor in the upward position, it would only be able to sense when that person was in position to use the window. . . .” [Emphasis added.]

Although this argument has not been re-iterated in this CPA proceeding, Applicants requested that the Examiner provide an affidavit under 37 C.F.R. §1.104(d)(2) (Reply dated Sept 10, 1999, page 3), to support his position. The Examiner has not provided such an affidavit. Applicants should be afforded the opportunity to present counter evidence, if the Examiner relies on "common sense" or "best results" to supply an element in the claims not shown or suggested in the prior art.

Moreover, it is not clear how the desire to avoid sensing the feet would necessarily dictate an upward orientation for the sensors. The problem of limited range of the crossing light-beam sensors shown in Fig. 5 is adequately addressed by outwardly oriented proximity sensors, as might be suggested by Gionet et al. (issued 1986) or by Jönsson and as actually used in the market place since at least 1989. See Reltec Equipment Inc. Product Brochure, page 3, copyright 1989 (Information Disclosure Statement and affidavit of Steven Haliburton, ¶ 7). The Reltec product has outwardly oriented proximity sensors which sense the presence of an attendant approaching an automatic window. They clearly sense the torso of the person and may or may not sense the feet. However, since a person's feet are generally directly below his or her center of gravity when standing or walking, it is unclear why sensing the feet would be any different from sensing the torso generally or why the person of ordinary skill in the art would orient the sensors to point up rather than out or down. The best evidence of what one of ordinary skill in the art would do is what they did do. Horizontal proximity sensors have not only been known but have actually been used in automatically opening fast-food service windows since at least 1989. Nevertheless, no one proposed upwardly oriented proximity sensors before Applicants.

THE EVIDENCE ESTABLISHING THE EXISTENCE OF A LONG FELT AND UNSOLVED NEED WHICH HAS BEEN FILLED BY THE CLAIMED INVENTION IS SUFFICIENT TO SHOW THAT THE CLAIMED INVENTION WAS NOT OBVIOUS

Applicants have submitted affidavit evidence to show the existence of a long felt and unsolved need for an automatic fast-food service window which reduces the number of false openings and closings. Applicants' claimed invention fills the identified need. Despite the advantages which are attributable to the claimed invention, the invention was not made by others for a long time. This is objective evidence of non-obviousness. It is respectfully submitted that this evidence rebuts a case of obviousness under 35 U.S.C. §103, even if a *prima facie* case had been made.

The Examiner improperly rejects the affidavit of Steven Halliburton for failing to provide evidence of what the prior art teaches or considering the prior art of record. On the contrary, Mr. Halliburton demonstrates what those in the art did when combining an automatic service window (figure 5 of the specification) and a horizontally or downwardly pointing proximity sensor (Boiucaner, Gionet et al., or Jönsson). The combination suggested by the Examiner of a service window and a proximity sensor was actually offered for sale from at least 1989, but it did not include an upwardly pointing proximity sensor. The Reltec Catalog (copyright 1989) shows this device and is explicitly referred to in paragraph 7 of Mr. Halliburton's affidavit. The actual problems experienced when using the device and associated with outwardly pointing proximity sensors are then set forth in paragraphs 8 and 9. In paragraph 10, Mr. Halliburton states that the claimed upwardly focused sensor significantly reduces unintentional openings "... because only products or goods being passed above or over the sensors activate (open) the window." As noted above, this is a different principle of operation from sensing the presence of the body of the attendant. Mr. Halliburton's experience extends from about November, 1990,

that is, about contemporaneously with the Reltec device which embodies the combination suggested by the Examiner.

The Examiner further, and incorrectly, asserts that the evidence offered is insufficient because affidavits of customers should have been provided. The affidavit of Cheri Roell, Building Materials Specialist for Wendy's International, is the affidavit of a customer. Ms. Roell has experience in the industry since August 1992. (Affidavit of Cheri Roell, ¶ 2.) A fast-food service window which automatically opens without generating too many false opening and false closing operations has long been desired. (Affidavit of Cheri Roell, ¶ 7.) Note that windows with horizontal proximity sensors have been available throughout Ms. Roell's experience. (See affidavit of Steven Halliburton and the photograph on page 3 of the Reltec Product Brochure showing an installation of this type in a Wendy's restaurant.) Ms. Roell is herself familiar with windows having side, straight out and downward sensors, but these windows have generated too many false opening and closing operations. (Affidavit of Cheri Roell, ¶ 8.) Ms. Roell states that a device having the claimed upwardly pointing proximity sensors reduces the false openings and closings and therefore fills the need for such a device. (Affidavit of Cheri Roell, ¶ 9.)

The affidavit of Ray J. Epps shows that most customers of fast-food service windows are corporations providing fast-food, e.g., Wendy's, Burger King, Arby's, KFC, Jack in the Box, Shell Oil, Chevron, Pizza Hut, Church's Fried Chicken, and Popeye's. (Affidavit of Ray J. Epps, ¶ 11.) This conforms with ordinary experience. The Examiner's suggestion that the affidavit of Ms. Roell should be ignored because she represents a corporate customer is neither realistic nor justifiable.

Ray J. Epps has had personal experience in this field for 13 years. (Affidavit of Ray J. Epps, ¶ 6.) He has personal experience working with customers and knows that personal service windows with side, straight out or downward sensors have generated too many false openings and closings. This testimony corroborates the testimony of a designer (Steven Halliburton) and a

customer (Cheri Roell) that a demand has existed for better personal service windows.

A "long felt need" is an important indicator of non-obviousness because it represents a motivation to invent. The drive to invent can be produced either by observation of a problem or customer demand. (*See, e.g., In re Mahurkur Patent Litigation*, 831 F. Supp. 1354, 1377-78, 28 U.S.P.Q.2d (BNA) 1801, 1809 (N.D. Ill, 1993): "If people are clamoring for a solution, and the best minds do not find it for years, that is practical evidence . . . of the state of knowledge." *See also, Henkels & McCoy Inc. v. Elkins* 455 F.2d 936, 937, 172 U.S.P.Q. (BNA) 333 (3d Cir., 1972): "[The inventor's] own testimony showed that . . . increased public protest . . . created strong and urgent commercial demand . . .") In addition to personal experience, therefore, Ray Epps also testifies as one having knowledge of service window supply. In this context, the statements of customers to Mr. Epps concerning their product requirements and satisfaction of those requirements are acts and are not hearsay. The expressed demand for better functioning windows and dissatisfaction with existing technology, including the type of technology suggested by the Examiner, is an act which produces in the service window supplier the drive to invent, whether or not the statements made by the customers are true. Thus the "long felt need" of the customer is to have a service window without excessive false openings and closings. The "long felt need" of the supplier is to satisfy the expressed demands of the customer. Even under the Federal Rules of Evidence a statement is only "hearsay" if it is offered to prove the truth of the matter asserted in the statement, not if it is offered to show that the statement was made. (FRE 801(c).) In the context of the Ray Epps affidavit, statements by customers of their requirements motivate invention simply by being said by customers.

Even if paragraphs 9 and 10 of the Ray Epps Affidavit contain hearsay, they would be admissible even in a court proceeding as statements of the customer's mental or emotional condition under FRE 803(c).

Even if paragraphs 9 and 10 of the Ray Epps Affidavit were both hearsay and inadmissible in Federal Court proceedings, the rest of the affidavit must still be considered. (*See, e.g., In re Rinehart*, 531 F.2d 1048, 189 U.S.P.Q. (BNA) 143 (CCPA, 1976) and *In re Piasecki*, 745 F.2d 1468, 233 U.S.P.Q. (BNA) 785 (Fed. Cir., 1984)) In particular, paragraphs 6, 7, 8 and 11 are based on the affiant's experience.

The testimony of James C. Epps is based on personal experience extending over a period of 14 years, and further corroborates the testimony of the other affiants. His experience has been that there is a need for automatic service windows which do not generate an excessive number of false openings and closings during use. Windows with sensors focused down or out have not met that need. As shown above, a window with outwardly focused proximity sensors meets all the criteria of the combination suggested by the examiner and was actually available in the marketplace. Mr. Epps states that automatic windows with upwardly focused proximity sensors do not generate excessive false openings and closings. Therefore such devices, which are the claimed invention, fill the identified need. Based on his experience, Mr. Epps states that service attendants have greater freedom of movement as a consequence of using devices having the claimed feature.

Applicants' invention differs from the prior art in that it has upwardly pointing proximity sensors connected with an automatically opening service window. Each of the independent claims contains language directed to this feature. Each of the affiants testify that automatically opening service windows without this feature have existed but have not solved the problem of inappropriate opening and closing of the windows. (Affidavit of James C. Epps, ¶ 8; affidavit of Cheri Roell, ¶ 8; affidavit of Ray J. Epps, ¶ 7; affidavit of Steven Halliburton, ¶¶ 7-9.) The experience of the affiants extends from 14 years (James Epps) to 7.5 years (Cheri Roell). Since at least 1989 a product having outwardly directed proximity sensors (the combination hypothesized by the examiner) has been available, but has not met the need for reduced false

response in automatic windows. Each of the affiants identifies the claimed feature of upwardly pointed proximity sensors as the critical feature and that the use of upwardly pointing proximity sensors reduces inappropriate responses, thereby meeting the identified and long-standing need. (Affidavit of James C. Epps ¶¶9-10; affidavit of Cheri Roell, ¶¶9; affidavit of Ray J. Epps, ¶¶9-10; and affidavit of Steven Halliburton, ¶¶9-11.) Thus, the Examiner's objection that the affiants do not define the "invention" is incorrect.

Rejection of a claimed invention under 35 U.S.C. §103 is almost always a speculative exercise. In this case the Examiner has speculated that the person of ordinary skill in the art when combining an automatic service window (figure 5 of the disclosure) with a proximity sensor would ignore the teachings of Bioucancer, Gionet et al., or Jönsson that proximity sensors should be directed out or down and would instead direct the sensors upwardly, as taught by Applicants. Applicants have demonstrated that the combination of an automatic service window with a proximity sensor was actually known and marketed, that it had outwardly directed proximity sensors, and that it was less effective than the claimed upwardly directed proximity sensors in connection with characteristics which customers wanted improved. Nevertheless the supposedly "obvious" modification was not made by others from at least 1989.

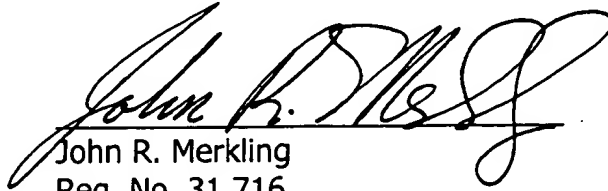
It is respectfully submitted that even if the Examiner had made a *prima facie* case for obviousness by identifying all the claimed elements of the invention (which is not the case as discussed above), or if the Examiner had supported the deficiencies in the *prima facie* case by an appropriate affidavit (as requested by Applicants), the proffered evidence nevertheless demonstrates that the claimed invention was not in fact obvious to a person of ordinary skill in the art. The claims should, therefore, be allowed.

VII. Conclusion

A *prima facie* case of obviousness against pending claims 1 through 5, 7, 9 and 10 is not supported by the cited prior art. Modification of the prior art as

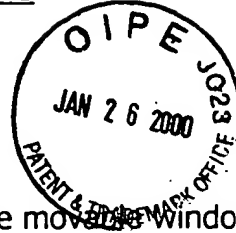
suggested by the Examiner is not supported by the cited prior art, a requested affidavit or other evidence . If a *prima facie* case under 35 U.S.C. 103 had been made, however, it has been rebutted by evidence of the actual practices in the art and by evidence of a long-felt need satisfied by the claimed invention. The rejections of the independent claims should be reversed. The dependent claims should be allowed with their parent claims.

January 26, 2000
Date


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APPENDIX OF CLAIMS

What is claimed is:



1 1. A fast-food service window comprising:
2 a window assembly with at least one movable window member;
3 a window motor operator assembly mechanically coupled to the
4 movable window member;
5 an upwardly focused proximity sensor functionally coupled to the
6 motor operator assembly;
7 wherein the movable window member opens whenever a person is
8 sensed by said proximity sensors.

1 2. A fast-food service window comprising:
2 a window assembly with at least one movable window member;
3 a window motor operator assembly mechanically coupled to the
4 movable window member;
5 a plurality of upwardly focused proximity sensors functionally
6 coupled to the motor assembly;
7 wherein the movable window member opens whenever a person is
8 sensed by said proximity sensors.

1 3. A fast-food service window comprising:
2 a window assembly with at least one movable window member;
3 a window motor operator assembly mechanically coupled to the
4 movable window member;
5 an upwardly focused infrared proximity sensor electrically coupled to
6 the window motor operator assembly;
7 wherein the movable window member opens whenever a person is
8 sensed by said infrared proximity sensor.

1 4. The fast food service window set forth in claim 3 wherein said movable
2 window member is opened when an upwardly focused infrared beam is detected
3 by the proximity sensor and is closed when the infrared beam is not detected by
4 the proximity sensor.

1 5. The fast-food service window set forth in claim 1 wherein the sensor has
2 an integral infrared emitter and receiver.

1 6. Canceled.

1 7. The fast-food service window set forth in claim 2 wherein each of the
2 sensors has an integral emitter and receiver.

1 8. Canceled.

1 9. The fast-food service window set forth in claim 3 wherein the sensor has
2 an integral emitter and receiver.

1 10. The fast-food service window set forth in claim 3 wherein the infrared
2 sensor emits an infrared beam at angle askew of the vertical plane.

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